

REMARKS

In the outstanding Office Action, a restriction requirement was made. Through this response, Applicant affirms its election of the invention of Claims 1-16 and 21-29. Claims 17-20 and 30-35 are cancelled. New claims have been added; however, no additional claim fees are believed payable. If fees for additional claims are deemed payable, please charge our Deposit Account No. 50-0935.

Several §112 second paragraph rejections were made as to Claims 1-16. The phrases “formed in a heated die set” and “prepared from a paperboard blank” were objected to as unclear. Reconsideration is requested in view of the enclosed *Declaration of Dean P. Swoboda*, the discussion of paperboard manufacture in the application at pages 10-16, the amendments made and particularly in view of **Figures 2, 3 and 4** of the application as filed.

As Mr. Swoboda notes, there are only two types of shaped paper food containers – pulp-molded and those made from paperboard (*see* paragraph 2 of the *Declaration of Dean P. Swoboda*). Given the description and reality in the marketplace, it is believed the language is more than adequate for purposes of §112, second paragraph.

As to the terms “high” and “glossy” objected to by the Examiner, these terms have been eliminated as unnecessary.

The Examiner has also objected to the use of the test method “ASTM D523-89” as indefinite since it may change with time and the use of 60 degrees in the claim because no temperature scale has been defined. This objection is believed moot in view of the copy of ASTM D523-89 submitted with the *Declaration of Dean P. Swoboda*. It is seen from that document that 60 degrees is the beam axis angle. *See* paragraph 6.2.1.1., ASTM D523-89. As to the Examiner’s objection that the standard may change in time, it is noted that the “89” designation specifies the version of the test which is therefore not subject to change. *See Declaration of Dean P. Swoboda*, paragraph 3. In any event, a copy of the test procedure is now of record in this application and the objection is now believed overcome. *See* paragraph 4 of the *Declaration of Dean P. Swoboda* and Exhibit 2 thereto.

Similar objections were made as to Claims 21-29 which are believed overcome in view of the evidence submitted and foregoing amendments.

The phrase "water borne compositions" was objected to in Claims 4 and 23. That terminology has been replaced with "aqueous emulsion" as noted in Table 1, p. 16 of the specification as filed and accordingly, the objection is believed overcome.

In Claims 14, 15 and 22 the phrase "prior to being coated" was objected to. That language has been cancelled and replaced with "underneath", consistent with **Figure 1** and the text at p. 12 of the application as filed. In Claim 16, the phrases "maintained at a temperature" and "during pressing" were objected to. Reconsideration of these objections is believed warranted in view of the *Declaration Dean P. Swoboda*, the description in the application as filed at p. 13, lines 10-26, p. 15, lines 10-26, **Figures 3 and 4** in particular, as well as the amendments to Claim 1.

The claims were also rejected on art. Claims 1-4, 10-13 and 16 were rejected under 35 USC §102(b) as anticipated by United States Patent No. 5,776,619 to *Shanton*. Claims 5-9, 14-15 and 21-29 were rejected as obvious over *Shanton* '619.

As amended, this application is believed in condition for allowance. The claims have been amended to clearly differentiate over *Shanton* '619 which in fact teaches away from the claimed subject matter. *Shanton* teaches to use heavily loaded, clay-filled coatings and specifically teaches not to use styrene-butadiene resins; and further that styrene-butadiene highly filled layers have low gloss. In particular, *Shanton* '619 notes at Col. 4, lines 48-55 that styrene-butadiene resins are inferior:

Several different polymer formulations were investigated for forming the latex portion of the coating composition of the present invention. A polyvinyl acetate/acrylate polymer latex in the top coat and a styrene butadiene latex in the base coat currently used in a packaging grade application were tested, but were found to produce a plate coating with poor plate properties, especially grease resistance.

It is further noted that the highly mineral-filled styrene-butadiene coatings disclosed in *Shanton '619* have a gloss at 60 degrees of much less than 40 gloss units and that *Shanton '619* does not teach coatings having a surface gloss of 45 or more at 60 degrees. See *Declaration of Dean P. Swoboda*, paragraphs 8 and 9.

Support for new Claims 36, 37 as to "45 or more" gloss units are found on page 3, line 10 of the specification as filed, whereas the limitations of the filler weight or the absence of filler is found at the bottom of page 4 and the top of page 5. The language "press-applied" in new claim 44 is found at page 11, lines 17-20 in the specification as filed.

Claim 1 has been amended to eliminate any arguable overlap with *Shanton '619* by reciting "up to 2 lbs. of a mineral filler". As also noted in the *Declaration*, the results of the present invention are surprising, showing gloss values 20 or more points higher over a comparable paperboard coated without a styrene-butadiene resin layer. See *Declaration of Dean P. Swoboda*, paragraph 7.

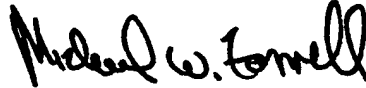
Claim 21 is not believed remotely suggested by *Shanton '619* which does not disclose clay base coatings underneath a bilayer finish coating system.

New Claims 38-43 are directed to unfilled finish coatings (support for these claims is also found on pages 4-5 of the patent application as filed) and bear no resemblance whatsoever to *Shanton '619*.

In view of the enclosed *Declaration of Dean P. Swoboda*, as well as the above amendments and Remarks, this application is believed in condition for allowance. If for any

reason the Examiner would like to discuss this case, the Examiner is invited to call at the number listed below.

Respectfully submitted

A handwritten signature in black ink, appearing to read "Michael W. Ferrell". The signature is stylized with a large, looped 'M' and a cursive 'W'.

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APPENDIX A

(clean version of Claims 1-16 and 21-23 and new Claims 36-44)

1. (Amended) A disposable shaped paperboard food container with a bilayer finish press-formed in a heated die set from a paperboard blank,

said paperboard blank being prepared from a paperboard substrate provided with a first finish coating layer consisting essentially of a styrene-butadiene resin composition and a second, top coating finish layer consisting essentially of an acrylic resin composition applied to said first finish coating layer wherein said first and second coatings contain up to about 2 lbs of mineral filler per 3,000 square foot ream and, wherein said food container exhibits a surface gloss of at least about 40 gloss units as measured by test method ASTM D523-89, 60 degree method.

2. (Amended) The paperboard food container according to Claim 1, wherein said food container exhibits a surface gloss of at least about 50 gloss units as measured by test method ASTM D523-89, 60 degree method.
3. (Amended) The paperboard food container according to Claim 1, wherein said food container exhibits a surface gloss of between about 45 gloss units and about 65 gloss units as measured by test method ASTM D523-89, 60 degree method.
4. (Amended) The paperboard food container according to Claim 1, wherein said styrene-butadiene resin composition and said acrylic resin composition are aqueous emulsions.
5. (Amended) The paperboard food container according to Claim 1, wherein said first finish coating layer is applied to said paperboard substrate in an amount of from about 0.25 pounds to about 1.5 pounds per 3,000 square foot ream.

6. (Amended) The paperboard food container according to Claim 5, wherein said first finish coating layer is applied to said paperboard substrate in an amount of at least about 0.5 pounds per 3,000 square foot ream.
7. (Amended) The paperboard food container according to Claim 6, wherein said first finish coating layer is applied to said paperboard substrate in an amount of from about 0.6 pounds to about 1 pound per 3,000 square foot ream.
8. (Amended) The paperboard food container according to Claim 1, wherein said second top finish coating layer is applied to said paperboard substrate in an amount of at least about 0.5 pounds per 3,000 square foot ream.
9. (Amended) The paperboard food container according to Claim 1, wherein said second top finish coating layer is applied to said paperboard substrate in an amount of from about 0.25 pounds to about 1 pound per 3,000 square foot ream.
10. (Amended) The paperboard food container according to Claim 1, wherein said styrene-butadiene resin composition comprises a carboxylated styrene-butadiene resin.
11. (Amended) The paperboard food container according to Claim 1, wherein said paperboard substrate has a basis weight of from about 100 to about 300 pounds per 3,000 square foot ream.
12. (Amended) The paperboard food container according to Claim 11, wherein said paperboard substrate has a basis weight of from about 125 pounds to about 150 pounds per 3,000 square foot ream.
13. (Amended) The paperboard food container according to Claim 11, wherein said paperboard substrate has a basis weight of from about 150 to about 200 pounds per square foot ream.
14. (Amended) The paperboard food container according to Claim 1, wherein said paperboard substrate is sized with a starch composition in an amount of from about 4 to about 15 pounds

per 3,000 square foot ream and provided with a clay coating prior to being coated with said first finish coating layer.

A1
15. (Amended) The paperboard food container according to Claim 14, wherein said paperboard substrate is coated with one or more clay coatings in a coatweight amount of from about 8 lbs of clay coating per 3,000 square foot ream to about 24 lbs of clay coating per 3,000 square foot ream underneath with said first and second finish coating layers.

16. (Amended) The paperboard food container according to Claim 1, wherein the forming surfaces of said heated die set are maintained at a temperature of from about 250° F to about 400° F during pressing of said container.

21. (Amended) A coated paperboard for making a paperboard food container with a bilayer finish wherein said container exhibits a surface gloss of at least about 40 gloss units as measured by test method ASTM D523-89, 60 degree method, said coated paperboard comprising:

- A2
- a) a paperboard substrate sized with from about 4 pounds of starch per 3,000 square foot ream to about 15 pounds of starch per 3,000 square foot ream and provided with a clay coating;
 - b) a first finish coating layer consisting essentially of a styrene – butadiene resin composition applied to said clay coating; and
 - c) a second finish top coat layer consisting essentially of an acrylic resin composition applied to said first layer wherein said first and second finish coatings contain up to about 2 lbs of mineral filler per 3,000 square foot ream.

22. (Amended) The coated paperboard according to Claim 21, wherein said paperboard substrate is coated with one or more clay coatings in a coatweight amount of from 8 lbs of clay coating to about 24 lbs of clay coating per 3,000 square foot ream underneath said first finish coating layer and said second finish top coat layer.

A2 23. (Amended) The coated paperboard food container according to Claim 21, wherein said styrene-butadiene resin composition and said acrylic resin composition are aqueous emulsions.

36. (New) The paperboard food container according to Claim 1, wherein said food container exhibits a surface gloss of 45 or more gloss units as measured by test method ASTM D523-89, 60 degree method.

37. (New) The coated paperboard according to Claim 21, formed into a container exhibiting a surface gloss of 45 or more gloss units as measured by test method ASTM D523-89, 60 degree method.

A3 38. (New) A disposable shaped paperboard food container with a bilayer finish press-formed in a heated die set from a paperboard blank,

said paperboard blank being prepared from a paperboard substrate provided with a first finish coating layer consisting essentially of a styrene-butadiene resin composition without mineral filler and a second, top coating finish layer consisting of an acrylic resin composition without mineral filler applied to said first finish coating layer, wherein said food container exhibits a surface gloss of at least about 40 gloss units as measured by test method ASTM D523-89, 60 degree method.

39. (New) The paperboard container according to Claim 36, wherein said food container exhibits a surface gloss of 45 or more gloss units as measured by test method ASTM D523-89, 60 degree method.

40. (New) The paperboard food container according to Claim 36, wherein said food container exhibits a surface gloss of at least about 50 gloss units as measured by test method ASTM D523-89, 60 degree method.

41. (New) The paperboard food container according to Claim 36, wherein said food container exhibits a surface gloss of between about 45 gloss units and about 65 gloss units as measured by test method ASTM D523-89, 60 degree method.

42. (New) The paperboard food container according to Claim 36, wherein said styrene-butadiene resin composition and said acrylic resin composition are aqueous emulsions.

A3 43. (New) The paperboard food container according to Claim 36, wherein said first finish coating layer is applied to said paperboard substrate in an amount of from about 0.25 pounds to about 1.5 pounds per 3,000 square foot ream.

44. (New) A disposable shaped food container press-formed in a heated die set from paperboard, wherein the container has a finish coating comprising one or more resin layers without mineral filler which finish layer or layers are press-applied to the paperboard and wherein the container exhibits a surface gloss of 45 or more gloss units as measured by ASTM D523-89, 60 degree method.

APPENDIX B

(marked-up version of Claims 1-16 and 21-23)

1. (Amended) A ~~high gloss, disposable~~ shaped paperboard food container with a ~~glossy bilayer~~ finish press-formed in a heated die set from a paperboard blank,

said paperboard blank being prepared from a paperboard substrate provided with a first finish coating layer consisting essentially of a styrene-butadiene resin composition and a second, top coating finish layer consisting essentially of an acrylic resin composition applied to said first finish coating layer wherein said first and second coatings contain up to about 2 lbs of mineral filler per 3,000 square foot ream and, wherein said food container exhibits a surface gloss of at least about 40 gloss units ~~at 60 degrees~~ as measured by test method ASTM D523-89-, 60 degree method.

2. (Amended) The ~~high gloss~~ paperboard food container according to Claim 1, wherein said food container exhibits a surface gloss of at least about 50 gloss units ~~at 60 degrees~~ as measured by test method ASTM D523-89-, 60 degree method.
3. (Amended) The ~~high gloss~~ paperboard food container according to Claim 1, wherein said food container exhibits a surface gloss of between about 45 gloss units and about 65 gloss units ~~at 60 degrees~~ as measured by test method ASTM D523-89-, 60 degree method.
4. (Amended) The ~~high gloss~~ paperboard food container according to Claim 1, wherein said styrene-butadiene resin composition and said acrylic resin composition are ~~water borne compositions~~ aqueous emulsions.
5. (Amended) The ~~high gloss~~ paperboard food container according to Claim 1, wherein said first finish coating layer is applied to said paperboard substrate in an amount of from about 0.25 pounds to about 1.5 pounds per 3,000 square foot ream.

6. (Amended) The ~~high-gloss~~-paperboard food container according to Claim 5, wherein said first finish coating layer is applied to said paperboard substrate in an amount of at least about 0.5 pounds per 3,000 square foot ream.
7. (Amended) The ~~high-gloss~~-paperboard food container according to Claim 6, wherein said first finish coating layer is applied to said paperboard substrate in an amount of from about 0.6 pounds to about 1 pound per 3,000 square foot ream.
8. (Amended) The ~~high-gloss~~-paperboard food container according to Claim 1, wherein said second top finish coating layer is applied to said paperboard substrate in an amount of at least about 0.5 pounds per 3,000 square foot ream.
9. (Amended) The ~~high-gloss~~-paperboard food container according to Claim 1, wherein said second top finish coating layer is applied to said paperboard substrate in an amount of from about 0.25 pounds to about 1 pound per 3,000 square foot ream.
10. (Amended) The ~~high-gloss~~-paperboard food container according to Claim 1, wherein said styrene-butadiene resin composition comprises a carboxylated styrene-butadiene resin.
11. (Amended) The ~~high-gloss~~-paperboard food container according to Claim 1, wherein said paperboard substrate has a basis weight of from about 100 to about 300 pounds per 3,000 square foot ream.
12. (Amended) The ~~high-gloss~~-paperboard food container according to Claim 11, wherein said paperboard substrate has a basis weight of from about 125 pounds to about 150 pounds per 3,000 square foot ream.
13. (Amended) The ~~high-gloss~~-paperboard food container according to Claim 11, wherein said paperboard substrate has a basis weight of from about 150 to about 200 pounds per square foot ream.

14. (Amended) The ~~high-gloss~~ paperboard food container according to Claim 1, wherein said paperboard substrate is sized with a starch composition in an amount of from about 4 to about 15 pounds per 3,000 square foot ream and provided with a clay coating prior to being coated with said first finish coating layer.
15. (Amended) The ~~high-gloss~~ paperboard food container according to Claim 14, wherein said paperboard substrate is coated with one or more clay coatings in a coatweight amount of from about 8 lbs of clay coating per 3,000 square foot ream to about 24 lbs of clay coating per 3,000 square foot ream ~~prior to being coated~~ underneath with said first and second finish coating layers.
16. (Amended) The ~~high-gloss~~ paperboard food container according to Claim 1, wherein the forming surfaces of said heated die set are maintained at a temperature of from about 250° F to about 400° F during pressing of said container.
21. (Amended) A coated paperboard for making a ~~high-gloss~~ paperboard food container with a ~~glossy~~-bilayer finish wherein said container exhibits a surface gloss of at least about 40 gloss units ~~at 60°~~ as measured by test method ASTM D523-89, 60 degree method, said coated paperboard comprising:
- a) a paperboard substrate sized with from about 4 pounds of starch per 3,000 square foot ream to about 15 pounds of starch per 3,000 square foot ream and provided with a clay coating;
 - b) a first finish coating layer consisting essentially of a styrene – butadiene resin composition applied to said clay coating; and
 - c) a second finish top coat layer consisting essentially of an acrylic resin composition applied to said first layer wherein said first and second finish coatings contain up to about 2 lbs of mineral filler per 3,000 square foot ream.

22. (Amended) The coated paperboard according to Claim 21, wherein said paperboard substrate is coated with one or more clay coatings in a coatweight amount of from 8 lbs of clay coating to about 24 lbs of clay coating per 3,000 square foot ream ~~prior to being coated with~~underneath said first finish coating layer and said second finish top coat layer.
23. (Amended) The coated paperboard food container according to Claim 21, wherein said styrene-butadiene resin composition and said acrylic resin composition are ~~water-borne compositions~~aqueous emulsions.